## REMARKS

In the Office Action, the Examiner rejected claims 1, 2, 5, 7-14, and 16-22 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,182,908 to *Devier et al.* This rejection is respectfully traversed for the following reasons.

Claim 1 recites a method including, for example, selecting a relationship from a plurality of relationships between valve commands and an operator input, the plurality of relationships being configured to provide various actuator responses with respect to the operator input, the selection being based upon the speed signal. Claim 10 recites a system including, among other elements, a controller electrically coupled to the sensor assembly and the operator input device, the controller being configured to select a relationship from a plurality of relationships between valve commands and the operator input based on the speed signal, the plurality of relationships being configured to provide various actuator responses with respect to the operator input. Claim 22 recites a machine having a similar controller recited in claim 10. These method, system, and machine are not taught by the cited reference.

*Devier et al.* discloses a control system for a hydraulic work apparatus. As shown in Fig. 1 of *Devier et al.*, the system includes a pump 16, a plurality of work elements 20, 22, 24, control valves, 30, 32, 34 placed in the fluid paths between the pump and the work elements, a controller 64, and operator control elements 54, 56, 58 to provide demand signals that correspond to select settings of each operator control element. As illustrated in the flow chart of Fig. 2, an algorithm receives demand signals representative of requested fluid flow to be delivered to respective work elements and work mode signals representative of a predetermined hydraulic circuit arrangement of the system. The algorithm then receives sensor values, such as an engine speed

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signal. The algorithm also determines the total requested flow, $Q_{REQ}$. In the event that the total requested flow does not exceed the maximum flow capacity, $Q_{MAX}$, the algorithm calculates the appropriate valve areas and valve stem displacements in response to the requested flow signals. If the total requested flow exceeds the maximum flow capacity, the algorithm utilizes priority values to adjust fluid flow delivered to each work element. Furthermore, the controller 64 controls the displacement of the pump 16. According to *Devier et al.*, the controller 64 calculates the actual flow rate, $Q_{ACT}$, of the pump, compares it with the maximum flow capacity, $Q_{MAX}$, and produces a pump control signal to adjust the displacement of the pump.

In the Office Action, the Examiner stated that in the system of *Devier et al.* the actual pump flow is compared to the requested pump flow to determine the relationship between the valve command and the operator input. However, *Devier et al.* does not compare the actual pump flow to the requested pump flow to determine the relationship between the valve command and the operator input. Instead, it compares them to produce "a pump control signal adjusting the displacement of each pump 16, 18." *See* col. 6, lines 15-19.

Moreover, *Devier et al.* does not teach or suggest a method including selecting a relationship from a plurality of relationships between valve commands and an operator input, the plurality of relationships being configured to provide various actuator responses with respect to the operator input, the selection being based upon the speed signal. Nor does it teach or suggest a system or machine including a controller electrically coupled to the sensor assembly and the operator input device, the controller being configured to select a relationship from a plurality of relationships between valve

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commands and the operator input based on the speed signal, the plurality of relationships being configured to provide various actuator responses with respect to the operator input. While *Devier et al.* avoids work element starvation and flow limiting situations and maintains proportionality with the operator demands and priority of the individual work cylinders, the method, system, and machines of claims 1, 10, and 22 provide various actuator responses with respect to the operator input. There is nothing in *Devier et al.* to teach or suggest such claimed features.

Therefore, the rejection of claims 1, 10, and 22 over *Devier et al.* should be withdrawn. Claims 2, 5, 7-9, 11-14, and 16-21 depend from claim 1 or 10, and those claims should also be allowable over *Devier et al.* at least by reason of their dependency from claim 1 or 10.

In the Office Action, furthermore, the Examiner rejected claims 1-4, 6-15, 17-19, and 22 under 35 U.S.C. § 102(f) as being anticipated by U.S. Patent No. 6,305,162 to *Cobo et al.* These rejections are respectfully traversed for the following reasons.

*Cobo et al.* discloses an apparatus for controlling a fluid system. As illustrated in Fig. 1 of *Cobo et al.*, the system has a pump 32, actuators 16, 18, valve assemblies 120, 122, input controllers, 28, 30, and an electrical controller 22. A joystick command is delivered to the controller 22. The controller 22 determines and delivers a corresponding valve command to the valve assembly 122. In a fluid control system, there is a deadband associated with the movement of a joystick from a neutral position to a position where an initial movement of the actuator occurs. According to *Cobo et al.*, "[i]f the present invention is not used, then, when the engine speed changes the first motion deadband also changes." *See* col. 5, lines 26-27. Fig. 3 of *Cobo et al.* shows a

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command curve 302 resulting in a calibrated first motion deadband 308 as a function of the joystick and the valve command. In *Cobo et al.*, an appropriate valve command is determined base don the operator input, the engine speed, the pump displacement, and the first motion deadband or calibrated command curve. A command curve may be determined for a range of pump engine speeds and pump displacements to result in the consistent first motion deadband. A valve command offset is then determined for each command curve, based on the differences between the calibrated command curve 302 and the determined command curve, such that the first motion deadband of each curve is consistent with the established first motion deadband 308, as illustrated in Fig. 4. Thus, the system of *Cobo et al.* teaches determination of a valve command that results in a consistent deadband.

While *Cobo et al.* teaches a system for determining a valve command that results in a consistent deadband for a range of pump engine speed, the method, system, and machine of claims 1, 10, and 22 provide various actuator responses with respect to the operator input. As a matter of fact, *Cobo et al.* teaches away from providing various actuator responses with respect to the operator input because its system determines a command that results in a consistent deadband. Thus, *Cobo et al.* fails to teach or suggest the method, system, and machines of claims 1, 10, and 22, and the rejection of those claims over the cited reference should be withdrawn.

Claims 2-4, 6-9, 11-15, and 17-19 depend from claim 1 or 10, and those claims should also be allowable over *Cobo et al.* at least because of their dependency from claim 1 or 10.

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In the Office Action, the Examiner rejected claims 1, 2, 8 and 9; 10, 12-14, and 22; and claims 1-4, 6-15, 17-19, and 22 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 or 13; claim 15: and claim 17, respectively, of U.S. Patent No. 6,305,162 to *Cobo et al.* For the reasons above, however, *Cobo et al.* does not suggest the subject matter of claims 1-4, 6-15, 17, and 22. Therefore, the rejection of the claims under the judicially created doctrine of obviousness-type double patenting should be withdrawn.

Applicant respectfully requests reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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